MYCOTAXON

Volume 107, pp. 331–333 *January–March 2009*

A new record of foliicolous fungi in Turkey and a new host

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Abstract — *Deightoniella arundinacea* is reported for the first time from Turkey, on *Phragmites australis*. *Pseudorlaya* is reported as a new host genus for the powdery mildew species *Erysiphe heraclei*. The morphology of the two fungi is briefly described.

Key words — dematiaceous hyphomycete, leaf pathogen, *Apiaceae*, *Poaceae*

Introduction

Deightoniella S. Hughes is a genus of plant pathogenic dematiaceous fungal anamorphs to which eighteen species have currently been assigned. *Deightoniella arundinacea* (Corda) S. Hughes is distinguished from *Deightoniella roumeguerei* (Cavara) Constant. (another pathogen of leaf blades of *P. australis*) by its effuse, greyish, less defined disease symptoms, longer conidiophores and obpyriform conidia (Constantinescu 1983, Bán et al. 1996). *Deightoniella arundinacea* causes stunted growth of the host plants and characteristic grey colonies due to abundant sporulation (Ellis & Ellis 1997), especially in September. Weather conditions (especially precipitation) are important for its distribution. It occurs predominantly in medium quality reeds situated near the lakes (Bán et al. 2002), being widespread on *Phragmites australis* (Cav.) Steud. in the Britain, Czech Republic, Germany, Japan, Romania, Russia, Ukraine, but is a new record for Turkey. Only *Deightoniella torulosa* (Syd. & P. Syd.) M.B. Ellis on *Musa* spp. has been reported from Turkey (Ellis MB 1957).

The powdery mildew species *Erysiphe heraclei* DC. is known from a wide range of host plants belonging to the *Apiaceae* (Braun 1995) and has been reported from Turkey on *Aethusa* L., *Anethum* L., *Anthriscus* Pers., *Daucus* L., *Eryngium* L., *Falcaria* Fabr., *Heracleum* L., *Myrrhoides* Heister ex Fabr., *Scandix* L., *Tordylium* L., *Torilis* Adans., *Turgenia* Hoffm., *Zosima* Hoffm. (Bahcecioglu Z & Yıldız B 2005, Kabaktepe S & Bahcecioglu Z 2006, Bahcecioglu et al. 2006,

Karaboz I & Öner M 1982, Oran YK 1967, Tamer AU et al. 1987). This is the first report of the genus *Pseudorlaya* Murb. as a host for *Erysiphe heraclei*.

We report a second species of *Deightoniella* from Turkey and a new host of *Erysiphe heraclei*.

Materials and methods

The material for this study was collected during field trips carried out in the city Kahramanmaraş located in the southern Anatolian region of Turkey during 2000-01. The identification of the host specimens was achieved with the help of Flora of Turkey (Davis 1965-85). The parasitic microfungi concerned were identified using Braun (1995) and Ellis & Ellis (1997). The specimens are deposited at the Inonu University Herbarium (INU).

Results

Deightoniella arundinacea (Corda) S. Hughes, Mycol. Pap. 48: 29 (1952).

On *Phragmites australis* (Cav.) Steud. (Poaceae).

Turkey, Kahramanmaras, Turkoglu, Cakilli village, 550 m alt., 8 September 2000, Z. Bahcecioglu 3029 (INU).

Foliicolous, colonies dark grey to greyish olivaceous-brown. Conidiophores scattered to loosely caespitose, erect, subcylindrical, somewhat sinuous-nodulose, 40–90 × 4–9 µm, basal cell and apex often somewhat swollen, septate, brown; conidiogenous cells integrated, terminal, monoblastic, percurrent, subcylindrical to somewhat swollen. Conidia solitary, acrogenous, obpyriform, 20–50 × 10–18 µm, 1–2-septate, at first pale, later pigmented, pale to mid brown, smooth or almost so, wall thin to somewhat thickened, base with a distinct (cicatriced) hilum.

Eighteen species of *Deightoniella* have currently been assigned. *D. roumeguerei* and *D. arundinacea* on *Phragmites australis*. *D. roumeguerei* has been reported from France (Constantinescu O 1983). *D. arundinacea* has been reported from Britain, Czech Republic, Germany, Japan, Romania, Russia, Ukraine (Ellis MB 1957). *D. arundinacea* is first record for Turkey.

Erysiphe heraclei DC., Fl. franç. 6: 107 (1815)

On *Pseudorlaya pumila* Grande (*Apiaceae*).

Turkey, Kahramanmaras, 32 km from Kahramanmaras to Andirin, 500 m, 13 June 2001, Z. Bahcecioglu 3106 (INU).

Mycelium on stems, inflorescences and leaves, amphigenous, effuse or in patches. Conidiophores straight, foot-cell cylindrical, 20–35 × 8.5–10 µm. Chasmothecia scattered to subgregarious, 80–120 µm diam. Asci (2–)3–6(–8),

sessile or short stalked, 40–75(–85) × 30–45(–50) µm, (2–)3–5(–6)-spored, spores large, ellipsoid–ovoid, 18–30 × 10–16 µm.

Erysiphe heraclei is on numerous host species of various host genera of the *Apiaceae* (Braun 1995). *Zosima* has been also reported from Turkey as a new host genus by Bahcecioglu et al. (2006). *Pseudorlaya* is a new host genus for *Erysiphe heraclei*.

Acknowledgments

We are indebted to Uwe Braun, Martin-Luther-Universität Halle, Institut für Biologie, Bereich Geobotanik und Botanischer Garten, Herbarium, Halle(Saale), Germany, for helpful suggestions.

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